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SURGICAL COMPLICATIONS OF GONORRHOEA.

Not only does the disease gonorrhœa demand the attention of the medical world because of the ravages which it produces on the male and female urethral mucous membrane, but it also demands attention because of the surgical disease which it may produce. The most frequent complication of gonorrhœa, from a surgical standpoint, extra urethra, is arthritis. This is a most frequent complication of gonorrhœa, and is one which is liable to occur at any stage of the disease, both in its acute and chronic forms. It sometimes occurs a year after the original acute attack, when the patient is in that stage known as chronic gonorrhœa, or even in the so-called "gleet" stage. Any of the large joints may be affected, usually the knee or elbow-joint. It is possible, however, to have a gonorrhœal arthritis of the hip-joint, of the ankle-joint, or, in fact, of any joint in the anatomy. The tendency at first is to a considerable effusion around the joint, and this effusion is mostly of the sero-fibrinous order, rarely suppurative. The tendency of this arthritis is to affect the synovial membrane and also the para-articular structures so that an ankylosis is often sure to result as a consequence of the destructive nature of the process. The treatment of these arthritides of gonorrhœal nature is at first energetic massage with iodine tincture, then immobilization, usually with a plaster splint; often puncture of the joint is necessary, and, again, opening of the joint surgically is to be recommended. In cases where the hip-joint is affected extension is sometimes resorted to with good results. König, of Berlin, reports eighteen cases of arthritis gonorrhœica of the hip-joint where extension was used with good results.

Another important complication of gonorrhœa that now comes to the surgeon's hand is a purulent affection of the kidney pelvis, due to the extension of the gonorrhœal process from the urethra and bladder to the ureter and kidney. It is an open question just how this is brought about—*i. e.*, whether it is due to surface extension along the ureter and thence to the renal pelvis, or whether it is due to a traveling of the gonococcus through the lymph spaces and vessels from urethra to pelvis. Certain it is that gonococci gain access to the kidney pelvis in cases of urethral gonorrhœa, and it is the surgeon's duty to treat these cases. The prognosis is rather favorable, and surgical measures early resorted to will bring about favorable results. The main difficulty in the management of these cases is the masking of symptoms so that the disease may run on for a long time with pouching of the pelvis, pyelonephritis, etc., before the diagnosis is made. Where both kidneys are affected, prognosis of course is much worse. It is in this condition that the efficacy of ureteral catheterization is brought into play in the establishment of diagnoses. With such modern appliances for diagnostic endeavors, certainly the complication can be early and intelligently dealt with, and the patients can be given the best chances for recovery. The point to be emphasized in this connection is that the medical profession should learn to look for these complications before it is too late; the day has passed by when gonorrhœal pyelitis or pyelonephritis is a rarity. It is now quite commonplace.

APPENDICITIS—WHAT SHALL WE DO WITH IT?

Again we find it timely to say something about appendicitis and its treatment. More than once have we had occasion to treat this subject editorially; more than once have we reviewed the literature on the subject, massive though it be; more than once has the writer talked the matter over with surgical brethren, first in America and now in Germany. We respect the opinions of Morris, of Price, and of others of renown in matters "appendicular" in the United States. Shall we say that we do not respect the dicta of Bergman, of Czerny, and of Erb and v. Leyden and Gerhardt? Let us then proceed, confident that we possess a thorough knowledge of what has been done by the medical leaders on both sides of the Atlantic, and trusting that our opinion is formed on rational and impartial grounds.

In rational order we might say that the pathology of appendicitis is purely an inflammatory condition in or about the region of the appendix vermiformis. Don't let us quibble now anent the misnomer "appendicitis." This inflammation usually means that a break has been made in the mucosa of the appendix, and that pathogenic organisms, usually the colon bacilli, have begun their depredations, and that a purulent infiltration is liable to ensue, if aid from without does not swoop down on this little relic of our Simean ancestry and render the parts aseptic and well enough to recover *de causis naturis*. Robert Morris, of New York, that

master of the beautiful little operation for appendicitis, believes in early operation, and quick operation, too. Joseph Price, of Philadelphia, stands beside Morris and says operate on all cases if seen early enough, and if the patient has appendicitis; and don't say, because you cannot find the appendix vermiformis, after opening the belly, that the appendix is "normal." Many others of renown say the same thing. What remains to be said? We offer up our little voice and say with these great men: operate in every case of appendicitis if the case be a true one; if the patient has been seen early enough. But, please, let the operation be done by a surgeon.

With an affection the nature of which is often fulminant, leading to suppuration and gangrene and general peritonitis, it is beyond our reason to find cause for temporizing. Once the diagnosis be established let the swift, sure knife of the surgeon "do the rest." The absurdity of waiting is perfectly apparent to those who have eyes and see. Fortunately, it is much easier nowadays to get both medical and lay brethren to see things our way. Hence, delay nowadays is so much the more criminal and foolish and usually means loss of useful lives that might have been saved.

Who can doubt this statement who has seen the disease in its clinical behavior, who has seen the surgical results of surgeons, and who has studied the principles of pathology? Who can dare hope to convince us that it is good treatment, that it is rational therapeutics, to give morphine or purgatives to a man with an appendix in the various stages of inflammation purulenta? Where is the medical ass who stultifies himself into the belief that he can resorb pus with an ice-bag? If he can be found—and close search will reveal him, mayhap flourishing in the metropolis, mayhap sequestering 'mid the sweet smell of timothy and clover in some dorf or burg—let him be taken out, and, if he cannot be better taught than that, verily, let his brains be beaten out so that his appendicitis-suffering friends may be saved from his "expectant" treatment.

As for the violent régime of the ice-bag and opium treatment of some of the German practitioners for what they are pleased to learnedly designate "perityphlitis" and "paratyphlitis," in contradistinction to what they call by the awful name "Wurmfortsatzentzündung" (appendicitis), we say with Erb that his treatment of perityphlitis or paratyphlitis is rational and good, but that in the majority of cases pure and simple perityphlitis or inflammation around the caput cæci or cæcum is but secondary to the primary purulent trouble in the appendix itself. We grant that operative interference is not called for in the disease paratyphlitis or perityphlitis, but we discredit the frequent existence of that state as either a pathologic or clinical entity. The German profession laugh at what they call the sheer and barbarous use of the knife in "perityphlitis" by American surgeons, and point with pride to their wonderful results with opium and ice: we would respectfully refer the reader for a reply to this Teutonic jeer to the old worn-out saying, "He who laughs last laughs best."

MEDICAL ATTENTION IN PUBLIC PLACES.

It is a matter of fact that knowledge of "first aid to the injured," emergency medicine, comes in good stead in many instances, and that quick thought and prompt action often saves lives that would otherwise be irretrievably lost. Many accidents occur in theaters, in public halls, and in restaurants. In most cases the physician is sure to be conspicuous by his absence, and dire consequences often ensue before he can be summoned. The practice of placing physicians in theaters is largely in vogue in the European cities. In Berlin each theater has an attending physician, who is bound to attend each performance or else send a substitute when he cannot come. By this means much good has been done. And yet, even the presence of the physician in a crowded place such as a theater necessarily must be does not always mean that prompt action can be forthcoming, and for this reason: the physician may be on the spot and all that, but yet he lacks all the accessories which are called for—trained assistants, etc., a suitable room, etc.

A movement has been started in Paris to install in each theater, public hall, circus and large cafe a "medical loge," where there will be an armamentarium complete enough to do all kinds of emergency work, with a trained assistant, operating table, etc. This isn't a bad idea, and might well be followed up in America, where accidents are proportionately more common than in the continental cities. It may not be often of service, but when the occasion *does* arise, it is—like other things—badly needed and hurriedly, too, so that a single case in a year may furnish sufficient excuse for the installation thereof.

Certainly the expense of the venture should not deter a conscientious management in starting it; it only needs the attention of enterprising medical men to "push it along."

PUERPERAL GANGRENE IN THE LOWER EXTREMITIES.

Now that we have almost driven out of existence that dreaded foe of the obstetrician, puerperal fever, we come to the conclusion that the accidents of childbirth have been materially reduced. Yet there are some disorders that will arise in spite of all medical or surgical aid—accidents that come by nature of interference with physiologic function. One of these accidents that we wish to speak of is that form of gangrene which is sometimes seen in the puerperium. It affects the lower extremities and is usually due to a thrombosis of the large femoral artery and secondary clots in the femoral veins. In some cases this pathologic condition is due to pressure of the skull of the child on the iliac artery, combined with a general lowered state of resistance, such as would naturally be expected. In the cases which have been reported—and in the last year or two there have been five—exitus has followed in the majority of cases. At necropsy it was found in one case, reported by Duflocq, that there was a gangrene of the right foot, slight thickening of the mitral valve of the heart, clots in

the femoral artery and vein. The popliteal artery showed microscopically signs of endarteritis. This gangrene set in four weeks after delivery. The pressure of the head could possibly be the only cause of the condition, as the thickening of the mitralis would hardly furnish a focus from which the embolus started. In other cases, particularly in one reported by Heymann, merely embolic changes were found in the vein muscles of the right leg, with no affection of the large veins. A strange case of this kind is reported by Wormser in the *Centralblatt fuer Gynecologie*, January 26th, in which there was a symmetrical gangrene of both feet in a woman with vitium cordis, four weeks after pregnancy. Amputation was performed with good after-results.

It should be remarked that in most of the cases cited death followed and surgical intervention was futile. This impresses one with the gravity of the complication. By nature of its pathology it can hardly be expected to be amenable to treatment.

DIABETES IN CHILDREN.

At the last meeting of the American Medical Association a discussion in the section for diseases of children occurred on the subject of diabetes mellitus in children. The discussion seems to take the ground that the affection is more common in children than is generally supposed. Some statistics were quoted in which it was shown that out of eighteen hundred and sixty-seven deaths from this disease in New York City, 4.25 per cent. represented the mortality of children with this disease. It seems to us that this is rather an uncommon disease, in spite of the statistics quoted, and in spite of the conclusions of the speaker on the subject, who says that "diabetes occurs in children much more frequently than is generally supposed." Moreover, we think that the speaker does the general profession an injustice when he says that examination of urine should be practiced much more frequently than is the custom. It is our observation that urinalysis is very conscientiously performed by the majority of the practicing profession.

Another point that we wish to take exception to in this paper is the fact that another "conclusion" states that there may possibly be an etiological relationship between diabetes mellitus and peliosis rheumatica. It seems perfectly absurd that one should think of such a state of affairs, knowing what we do of diabetes mellitus and also of morbus maculosus Werlhofii. It is a decided fact that peliosis rheumatica is a general affection attended with blood changes in many organs, that it has no special relationship to pancreatic or cerebral disturbances, and that, so far as etiology is concerned, we are not warranted in making any conjecture concerning it. As for diabetes mellitus, the weight of opinion nowadays is veering towards pancreatic changes, and the theory of cerebral disturbance is losing ground. It is of course possible to reconcile all this with the fact that temporary glycosuria, not diabetes mellitus, if you please, is

often due to brain disturbances consisting of increase in intracranial pressure. It is distinctly stated by Henoeh in his masterful work on pediatrics that *peliosis rheumatica* is often accompanied by stomach and intestinal disturbances, often by perforation, but nothing is said of sugar being found in the urine. The fact that purpura existed in one case described by the writer of the above paper is poor ground for jumping at the hasty conclusion that there is a relationship between diabetes mellitus and purpura hemorrhagica. Haste makes waste, especially in the too early sounding of pathologic dicta by those who generalize from specialties.

A NEW METHOD OF SUTURING THE ABDOMINAL WALL.

A new method of suture of the abdominal wall appeals forcibly to us as being a practicable innovation, and so we quote it. It has been devised by Juvara, and consists essentially of the following procedure in cases of hernia: the fascia of the recti muscles on both sides are dissected free for a distance of 2 or 3 cm. Then a long thin needle is thrust through the rectus and the peritoneum, from within outwards, then thrust through the rectus of the other side 4 to 5 cm. from the margin of the wound, and is further continued to the other side. Each suture is cut, making a line of divided sutures. These sutures are then tied. Then the fasciæ are sutured and tied, after which the fat layer is so sutured that it is attached to the fascial layer. The skin is sutured last of all. The method is very good and excellent results have been obtained with it.

POST-DIPHTHERITIC PARALYSES.

It is noteworthy that we see more cases of post-diphtheritic paralysis nowadays, with the antitoxin treatment, than clinicians twenty years ago and more were accustomed to see. At first sight some would be inclined to think that the antitoxin treatment is producing this state of affairs, but with a little logical afterthought the whole situation can be taken in. It is a fact that the antitoxin treatment of diphtheria has wonderfully lowered the mortality of that disease, and that very few cases of diphtheria properly and speedily treated with antitoxin go to dissolution. There are some cases in which a diphtheria bacillus of unusual virulence is working its havoc, and it is in this kind of a case that the toxin of the bacillus at work produces such an effect on the central nervous system, before the antitoxin can be brought into use, that paralysis of some kind or another will be sure to follow. Before the days of antitoxin therapy these severely virulent cases would quickly die, so that cases of paralysis would not be seen. Now we save the life of the child, but cannot prevent the production of the paralysis for the reason stated. This explains why we see so many cases of post-diphtheritic paralysis, as compared to the state of affairs in pre-antitoxic days.

Now that we have these cases of post-diphtheritic paralysis, the question arises, what shall we do for them? We have seen most excellent re-

sults in the treatment of these paralyses in Germany with the hypodermatic injection of strychnine nitrate. The injections are performed daily, beginning with five milligrams of the strychnine nitrate, and gradually increasing the dose. It certainly has a decided ameliorative effect, and will warrant conscientious trial on the part of pediatricists, whose lot it is to come in contact with these cases. Persistent trials should be made, and results will surely be forthcoming to those who are assiduous in their attempts.

THE UBIQUITOUS PNEUMOCOCCUS OF FRAENKEL.

It is one of the most curious things in the world to observe the ubiquitous behavior of the specific cause of acute lobar pneumonia, namely, the diplococcus pneumoniae of Fraenkel. It is well known that this organism is found in the saliva of most healthy individuals, and that it in no way differs from the same organism which is found in the lungs and rusty sputa of pneumonia patients. The writer undertook an investigation some time ago in search of the pneumococcus in healthy lungs, and found it post-mortem in quite a number of lungs which gave absolutely no signs of lobar pneumonia. In a description of this search, he laid emphasis on the fact that the diplococcus pneumoniae is an organism which is only capable of provoking an attack of pneumonia with the help of local and general assistance on the part of the human organism (INTERSTATE MED. JOUR., March, 1900).

The finding above alluded to is not the only peculiarity of this micro-organism. One of its most curious characteristics is its capability of being carried to some other part of the body after an attack of lobar pneumonia and there setting up some disorder, sometimes merely inflammation, sometimes suppuration. A curious case of this kind was studied by the writer last year; the case occurred in the practice of Dr. John Green. The patient, after passing through an attack of lobar pneumonia, became affected with an ophthalmia. This ophthalmia persisted, and later there developed in both eyes a symblepharon, or gluing together of the eyelids. The writer made cultures from the lids in this case and found the pneumococcus, succeeding in producing characteristics effected also by animal inoculations. The case was plainly one in which the original *causa belli*, the diplococcus pneumoniae, was carried from the lung to the eye. How this occurred it is impossible to say. It might have been due to the patient's rubbing some of his infectious sputum into his eye, or it may have occurred through the blood stream. There are other cases in medical literature which show this characteristic of this organism, this tendency to be suddenly caught up and swept to some remote part of the body, there to work havoc. Samter described a case wherein multiple abscesses due to the pneumococcus followed after an attack of pneumonia. Pearce describes seven cases of abscess formation due to the pneumococcus after an attack of lobar pneumonia. The latest case is one reported by Roeger in *Muenchener med. Wochenschrift*, where a metapneumonic abscess of

the abdominal wall occurred three months after an attack of pneumonia, after a sternal abscess due to the same agent. In none of these cases was it definitely proved that the pneumococcus was floating free in the blood stream. Just how the infective process localizes itself in this way is not known, so far as blood cultures will show. A case which will throw a great deal of light on the subject of how this metastatic process occurred was seen by the writer in the medical service of Prof. A. Fraenkel at the medical clinic at Urban Krankenhaus, Berlin. For six months after an attack of acute lobar pneumonia a patient at that institution struggled with an attack of general septicemia. In his blood were constantly found pneumococci. The case was of particular interest as it occurred in the clinic of the man who discovered the organism, and so was carefully watched. The patient finally died and showed general changes of septicopyemia with endocarditis maligna. This case goes to prove that the pneumococcus can be set free in the blood stream after an attack of lobar pneumonia and can cause septicemia, pyemia or even one remote abscess. Further investigation will probably more fully develop this idea, which has been proved by but one case in practice.

THE LOWERED BIRTH-RATE IN FRANCE.

It is an acknowledged fact, according to the best statisticians of France, that the birth-rate in that country is being steadily lowered year by year. This condition of affairs has been prevailing for some time, and has time and again been brought to the attention of the French government, in the hope that some means may be devised for remedying the evil which, in the opinion of the members of the Chamber of Deputies, threatens to depopulate France and give their arch enemies (who are legion) a chance to invade and occupy "la belle France," in much the same way that the hated Prussians invaded Lorraine in the seventies.

An explanation of this lowered birth-rate, according to the French authorities, is the practice of young girls being compelled to have a "dot" or dowry before they will be accepted by marriageable young men. Consequently, the girls without "dots" are compelled to live a life of single blessedness; and, furthermore, children become *aves rarissimae* in France. Of course, this is a good explanation in part, but it does not explain all. It is well known that the same rules governing marriages exist in Germany, where the dowry is a most important consideration, yet who would have the "killing gall" to hint at the absurdity of lack of fecundity in the dominions of Kaiser Wilhelm II.? The explanation for the state of affairs in France might well be explained by the practice of so many French people of indulging in perverted methods of sexual intercourse. It is well known, for instance, that a large part of the population of Paris are sexual perverts of the worst type. This applies not only to the demi-mondaine and their following, but also to the married community. In the face of such a condition, it is but natural to understand that the birth-rate would

be lowered. If measures are to be taken looking toward an increase in fecundity in France, possibly it would not be half so bad to establish "missions" for the reformation of the habits of the French. If their perversions could simply be turned in the right and proper direction, with their erotic tendencies, the tasks of the accoucheurs would speedily be redoubled and a generation of French would spring up that in point of numbers, at least, could easily cope with the legions of Germany or of England, which poor, suspicious France is ever seeking to vanquish, in theory if not practice.

THE ETIOLOGY OF PURPURA HEMORRHAGICA.

The disease purpura hemorrhagica, morbus maculosus Werlhofii or peliosis, as it is variously named, seems as far now from a solution, from an etiologic point of view, as it was decades ago, when its pathology was carefully studied by Virchow. Since Virchow described its pathology not much advance has been made.

It is a disease which is attended with changes in the blood-producing organs, and in the circulatory system. Of particular note—an observation that is frequently made—is the narrowness of the aorta. This was originally pointed out by Virchow. It still continues to be seen in connection with obduction work with purpura.

Many investigators have looked for a bacilliary cause for the disease. Staphylococci, streptococci, diplococci, bacilli of various forms and shapes have been found in the disease, but their identification as causative factors has not as yet been tacked to the disease.

The el dorado for bacteriologic workers has heretofore been the finding of a bacillus purpuræ. The one who seems to have approached nearest to this golden land is Kolb, who over ten years ago found a bacillus constantly in quite a number of cases of purpura, and thought it was the specific micro-organism for the disease.

In one fulminant case Kolb searched for the bacillus in the flowing blood during life, but could not find it, although he found it without difficulty in cultures made after *exitus letalis*. This bacillus grows on all the ordinary culture media and stains readily by the Kühne method with methylene blue. It was also pathogenic for animals. The animals which can be infected with it are mice, rabbits, and dogs, while guinea-pigs and pigeons are immune.

These animals become sick and show typical signs of purpura. After death they show hemorrhages into the body cavities and yield the bacillus with which they were infected. By filtration of cultures of this bacillus Kolb established the fact that he could also obtain similar effects with a toxin as well as with injections of the bacillus itself. Unfortunately, no confirmatory work has been done with this bacillus purpuræ of Kolb. It has slipped into the background. It gave promise of much but has yielded

naught. Search is still being made for bacteria in all observed cases of this disease, and possibly Kolb's observations will yet be confirmed.

A NEW TEST FOR SUGAR.

While it is true that we have a variety of tests for sugar in the urine, still we say, with all ardor, "the more the merrier." It is quite satisfactory to accept the fermentation or the phenylhydrazin test for sugar as reliable agents, but we cannot say the same for the other tests commonly used in the clinical laboratory. A new test which has been tried very conscientiously by Gebhardt at the Medical Clinic of the University of Ofen-Pest is that called the "nitropropiol test for sugar." In combination with sugar, nitropropiol forms first a green color, and then an indigo blue, due to the formation of indigo. The reduction of orthonitrophenylpropiol with dextrose was first pointed out by A. Baeyer in 1880. The firm Köln-Ehrenfelder Fabrik Teusch make a tablet of nitropropiol with sodium carbonate for use as a sugar test. The test is made by dissolving one of these tablets in ten ccm. distilled water, adding ten drops of urine, and then slowly heating the solution for three or four minutes in a test-tube, whereupon, if sugar be present, we get a blue-colored fluid; and, when the fluid is allowed to stand, we see plainly a deposit of indigo at the bottom of the tube. If the blue color is not distinct, then it is recommended to shake a little chloroform with the mixture. The chloroform absorbs the indigo, sinks to the bottom of the tube by reason of its greater specific gravity, and we see it as a blue colored mass of fluid below.

It is positive that this reaction obtains only in the presence of sugar. Furthermore, it gives no reaction with bile, with albumin, blood, albumins or pus. The reaction is not hindered by the presence of a small amount of albumins, but where it exists in large quantity then it is better to remove the excess of albumins by shaking with salt solution and chloroform and filtration. Again, patients who are taking different medicaments do not show this test with these medicaments which are excreted in the urine: for instance, benzoic acid, chloralhydrate, guaiacol, iodine, rhubarb, salicylic acid, senna, and turpentine. Kreatinin and glycogenic acid do not give the reaction. The test is extremely delicate, showing sugar in 0.03 per cent. solutions; solutions of 0.025 gms. sugar in 100 gms. water showed only the green color.

This test is of decided utility and should speedily come into general use. It is delicate and has no drawbacks. The tablets used for making the test are very cheap—in Germany. They are sold in packets of twenty-five tablets for about fifteen cents. It is easily performed, requires no waiting and no complicated apparatus, and so should appeal forcibly to the general worker. So far no substances have been found besides sugar that will reduce nitropropiol in urine.

ORIGINAL ARTICLES.

A CASE OF CHOLEDOCHOTOMY FOR THE REMOVAL OF IMPACTED STONES.¹

BY HOWARD LILIENTHAL, M. D., of New York City, New York,

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THE subject for operation this afternoon is a woman, thirty-five years old, who was admitted to the hospital five days ago, suffering from disturbance of the gall-passages, which caused, as you see, a general jaundice. She has told us that six years ago, after child-birth, there was a similar attack, accompanied by jaundice. This resulted in recovery, and she has been well until three months ago, when aching pain in the epigastrium, shooting through to the back, appeared. The pain is not constant, but disappears for a day or two and then returns for a similar period of time, gradually subsiding. There has been no actual colic or vomiting, but much distress after eating. Cathartics have relieved the constipation. The urine contains bile, but the stools are not distinctly clay-colored. The jaundice, indeed, has not been permanent during this period of six months, but has recurred with each successive attack. As you may observe, she is poorly nourished, as might be expected from the loss of appetite which has been a feature of her recent trouble. There has been some fever, the temperature just before this anæsthesia being 101°. Under unæsthesia, as you will note, the liver can be easily palpated, and it extends about two fingers' breadth below the free border of the ribs in the mammary line, thence horizontally until it meets the border of the ribs on the opposite side.

On account of the slight dullness and diminished breathing over both apices, I have selected chloroform as the anæsthetic of choice in this case. I note that both recti above the umbilicus are considerably contracted and firm, so that a deep anæsthesia is necessary to relax them and permit of satisfactory palpation.

The epigastric pain, with the accompanying boring pain in the back, together with the fever, jaundice, and the distinct history of remissions, lead to the diagnosis of common duct obstruction, which, at times, seems to be partially relieved. One important symptom of biliary pain is lacking here: I refer to the well-known shooting sensation in the right shoulder. However, we are fully justified, from the picture presented, in performing this exploratory operation, with the strongest probability that we shall find and remove the cause of the disturbance.

¹ Delivered at Mt. Sinai Hospital, New York City.

I will make my incision a curved one in its upper portion rudely parallel to the free border of the ribs for two inches, and thence carried down in a straight line over the outer border of the right rectus muscle for about two inches further. On reaching the muscular fibers of the rectus a blunt retractor is hooked into the border of the muscle and it is drawn strongly toward the median line. The incision through the posterior structures is made, as it were, behind this muscle. If it is necessary to enlarge the incision downward, the muscle need not be cut; but if the wound must be enlarged upwards, a transverse division of a portion of the upper part of the rectus muscle will give us plenty of room, and the resulting cicatrix will be a firm one, hernia in this region being almost unknown. Upon palpation with my right hand within the abdominal cavity I can distinctly feel the gall-bladder, and, if you will look into the wound, you will find that the viscus is brought easily into view. Its walls are thickened, but it is quite evident that it contains no stones, and that the thickening is due to the hypertrophy, on account of the extra strain from the habitual overcoming of unnatural resistance in the ducts. The cystic duct is also empty. On passing my left index finger along the gall-bladder and cystic duct through the foramen of Winslow, I can feel a hard tumor, apparently in the common duct, about one-half an inch from the duodenum. The mass is about as large as a pigeon's egg. It is very important in working in this region that one should not be hampered for want of room. I will, accordingly, enlarge the incision in its transverse portion, when, as you see, the semicircular flap, on retraction, gives an excellent exposure, permitting accurate manipulation with the aid of sight. Because on incising the duct we may expect bile more or less infecting to flow, it becomes imperative to pack away the viscera with the aid of gauze, as a precaution against contamination.

Just here I beg to call attention to the method of using these packings. We do not count the pieces of gauze; we do not use sponges; we do not use gauze-packs with strings attached; but we use long, thick, folded pieces of gauze, and not more than one-third of the packing is ever placed within the abdominal cavity, the other two-thirds being outside in plain sight. This simple method, though somewhat wasteful of gauze, is an absolute safeguard against the accidental leaving of pieces of gauze in the abdomen to make serious subsequent trouble and perhaps even cause the death of the patient. I have now placed the packings carefully, so that only the part which is to be operated upon is exposed. With the fingers of the left hand behind the tumor I push the mass forward, and while my assistant raises the omental tissue in front of it between two forceps I carefully dissect down through this tissue until the tumor is in view. I now feel that this tumor is almost certain to prove to be a stone, or perhaps several stones, in the common duct. While the tumor is still pushed forward by the fingers of my left hand I will encircle an area about two-thirds of an inch in diameter with a silk purse-string suture, put in with a

hemostatic needle. The walls of the duct are very much thickened and very tough, so that they lend themselves nicely to this mode of treatment. The sutures are now in place, and while my assistant raises the encircled area of the duct-wall between two mouse-tooth forceps an incision with the knife is made into its lumen. There is quite a little gush of bile, and, from the fact that one small facettèd stone is extruded, we may be sure that there must be others present. With a spoon I am easily enabled to remove this tumor, which turns out to consist of eight or nine small facettèd stones. On exploring the duct in the neighborhood I am able to withdraw ten or twelve other stones, which apparently did not form a portion of the tumor, but were lying, as it were, loose in the common duct behind the impacted mass. There is a very profuse and free flow of bile; so, having succeeded in our operation, we will tie the purse-string suture after tightening it carefully. My assistant during this procedure is inverting the edges so that the peritoneal surfaces may be in contact when the suture is tied. Nevertheless, I have placed a few extra silk sutures in the walls of the duct in order to secure the purse-string.

The operation is now finished. A long drain of gutta-percha tissue with a central core of gauze is inserted down to the wound in the duct and all the other packings are removed. I feel quite safe in doing this, as there is not a particle of leakage at present, and I see no reason why, in such tough tissue as the walls of this duct, we should fear the cutting out of the sutures. Therefore, with the exception of this drain, we will close the abdominal wound with through-and-through sutures of silk-worm gut and apply a dressing of dry gauze.

FINAL REPORT.—Twenty-nine days after the operation the patient was discharged from the hospital in excellent general condition, her wound entirely healed. Her convalescence was characterized by but one complication, namely: a post-operative nephritis accompanied by vomiting; which was treated with stimulants, diuretics, and the daily administration of fifteen grains of urotropin. Five days after the operation the drain was removed and the wound repacked with small strips of gauze, which were laid in through a urethral endoscope. Eight days following the operation the sutures were removed, the wound being primarily healed, with the exception of the drain-opening.

Dr. Edward Wallace Lee, formerly professor of surgery, Creighton Medical College, has located in the Linmar building, St. Louis. Dr. Lee was chief surgeon of Douglass County Hospital, also St. Joseph's Hospital, of Omaha, and Surgeon of C. B. & Q. Railroad. Dr. Lee will devote himself exclusively to surgery.

ANCHYLOSTOMIASIS.¹

BY J. H. DYER, M. D., of St. Louis, Missouri.

ANCHYLOSTOMIASIS is a disease of infrequent occurrence in this country; consequently, very few cases are reported. So infrequent, indeed, is this disease that some of you may be inclined to doubt the correctness of our (Dr. Glosemeyer's and my own) diagnosis of the case I am going to report to this society. This infrequency makes it the more important, in my opinion, to narrate this case of ours, which shows that such cases do occur, and which should keep us on the alert in those cases presenting a varied and quite infrequent symptomatology. The anchylostomum duodenale, also known by several other names, is the only strongyle harmful to man, and belongs to the same family as the sclerosotomum equinus, said to produce a verminous aneurism in the horse. It inhabits, as its name would indicate, the upper portion of the small intestine—the duodenum and jejunum. The parasite is from one-half to three-fourths of an inch long, and somewhat thicker than the seat-worm, which, of course, you all have seen many times. The female is larger than the male. The mouth of the a. duodenale has from six to eight tooth-like hooks, by means of which the parasite attaches itself to the mucous membrane of the intestine. The number of a. found in the intestine may be inconsiderable, but as a rule are, and in our case were, very numerous. Authorities claim that the female is more abundant than the male. The development of their ova takes place outside of the human body in water, and there the embryo leads for a time an independent existence until, gaining entrance to the stomach and bowels of man, it there undergoes complete development. 'Tis said that the female abstracts more blood than the male, the authority of this statement being made from the fact that the female is of a darker brown under the lenses of the microscope. Symptomatology of anchylostomiasis is due to the irritation of the parasite in the earlier stages and to the slow depletion of blood in the later stages, and is therefore practically the same as that of progressive anæmia, *plus* dyspeptic symptoms. The severity of the symptoms as well as the gravity of the prognosis of the case, of course, depends to a great extent on the number of parasites present, and on the duration of the case before a correct diagnosis is made and proper treatment instituted. For a long time the symptoms are indefinite, and often lead one to treat the alimentary, or, rather, digestive tract for functional disturbances, owing to the various gastro-intestinal manifestations, such as heaviness or pain in the epigastric or umbilical regions, loss of appetite, vomiting, and alternating constipation and diarrhœa. Sooner or later, depending, as aforesaid, largely on the number of a. present, the evidences of anæmia make their appearance. Palpitation of the heart, dyspnœa, vertigo, syn-

¹ Read before the St. Louis Academy of Medical and Surgical Sciences.

copal attacks and tinnitus aurium are complained of by the patient, and lead an unsuspecting physician to think his patient's gastro-intestinal ailment is of an hysterical origin. However, the patient grows more and more pallid, copious sweats add to his weakness, and there may be, and there was in our case, a slight elevation of the evening temperature. The pulse becomes rapid and at times irregular, and later on anæmic murmurs are heard over the heart and large vessels. The blood is, as in pernicious anæmia, pale and watery, deficient in hæmoglobin, and the red blood corpuscles are greatly reduced in number. The stools are of a brownish or blackish color, and at times distinctly hæmorrhagic.

Such was the case in our patient, and this led us, after consulting together, to make a microscopic examination of the fæces and consequent absolute and positive diagnosis of anchylostomiasis by the finding of their ova, further confirmed by the immediate improvement of our patient on our change to the specific treatment for that malady. According to the best authorities on the subject, the patient in the final stages becomes apathetic and dropsical. The serous cavities fill with fluid, producing urgent dyspnœa and ascites; there may be hæmoptysis, albuminuria and severe nervous disturbances. I cannot vouch for all these symptoms, as our patient did not reach that stage of the disease ere we recognized the true nature of it and began proper treatment, with, as before stated, surprisingly excellent results. Our patient was very nervous, however, so much so that insomnia ensued. Patient's weight was reduced from one hundred and eighty-three to one hundred and twenty-five pounds, making a loss of fifty-eight pounds in less than three months. The disease may assume an acute course, terminating fatally in a few weeks' time; and for this reason I would advise a thorough microscopic examination of the fæces in patients suffering from a progressive anæmia, as an early diagnosis only may be the means of saving the patient's life, as that will lead us to institute proper treatment. The usual course is, however, of several months' duration. Spontaneous recovery never occurs, and a fatal termination inevitably results unless the condition is recognized in time and properly treated. Anchylostomiasis must be distinguished from idiopathic pernicious anæmia; and the only means of so doing is by a microscopic examination of the fæces for the presence or absence of the ova of the *a. duodenale*. A failure to differentiate, I presume, may have been the cause of physicians losing patients thought to be suffering from idiopathic anæmia only, and consequent treatment with ferruginous tonics without removing the cause. In places where the disease is prevalent, of course prophylaxis is of great importance. The drinking water should be boiled and thorough cleanliness observed. After once recognizing the disease, the treatment is simple. Thymol is a specific. The patient should undergo the same preparatory treatment as for tape-worm, and the remedy given in large doses, followed by purgatives. The same treatment may be repeated after a

week, if found necessary. After the destruction of the parasites, ferruginous and other tonics are, of course, indicated.

REPORT OF CASE.

This case of ours occurred in a lady about forty-five years of age. The symptoms were as follows: Weakness, particularly noticeable on the least exertion; a feeling of heaviness, amounting to pain at times, in the region of the stomach; eructation of gases; palpitation of heart; constipation, alternating with attacks of diarrhœa. Later on, patient became very anæmic; anæmic murmurs were plainly heard over the base of the heart; copious sweats, at night especially, occurred, and there was an elevation of the temperature to 100 and 100.5 degrees in the evenings. Patient was very nervous, causing more or less insomnia. The stools were very dark, and more or less distinctly hæmorrhagic. Patient, when she first came under our observation, had lost about twenty-five pounds. We instituted treatment for the dyspeptic symptoms, and gave in conjunction with those remedies the usual drugs for the nervousness. Our patient, under this form of treatment, continued to grow worse and weaker and lose flesh, until she had lost fifty-eight pounds, when we decided to make an examination of the fæces for parasites or their ova, which were found to be very numerous. A microscopical examination of the blood was also made, which revealed nothing dissimilar from the blood as found in idiopathic pernicious anæmia, which all of you have had occasion to treat. The treatment which I have already narrated in my paper was instituted with the most gratifying result. Patient in two months regained her former weight, and is now in perfect health.

Koplik's pre-eruptive buccal sign of measles was present in one hundred and sixty-nine out of one hundred and eighty-seven cases in the New York Foundling Hospital during the past year. These whitish spots appear on the mucous membrane one or two days prior to the general eruption, and are valuable aids in diagnosis, as they are not known to be present in any other disease.

Vaccination is preferably performed on the arm, over the insertion of the deltoid. If the leg be elected, the site should be at the junction of the middle and lower thirds of the outer side of the thigh. The hands of the operator and the field of operation should be thoroughly scrubbed with brush, soap and water. A little alcohol may be applied and allowed to evaporate. The scarified area should not exceed three-eighths of an inch in diameter, and should not be deep enough to cause much exudation of blood. Glycerinized virus is preferred. It should be thoroughly rubbed in and dried in the air. No dressing is necessary.

THE DOCTRESSES OF MEDICINE.¹

By T. C. MINOR, M. D., of Cincinnati, Ohio.

DR. MELANIE LIPINSKA, whose portrait appears herewith, is the authoress of "*Histoire des femmes medecins*;" and, as her work is very interesting from a medico-historical standpoint, we venture the publication of a few extracts.

The number of female physicians is increasing. During the year 1899-1900 the Paris school alone counted twenty-nine French women inscribed, and also one hundred female medical students from other portions of the globe. Is this right? Is it a misfortune? Let some more competent judge decide the question.

Feminism in these militant days is not a new condition. It is as old as our planet. There were female physicians in the time of Hippocrates, and the mother of Socrates was a sort of doctress, according to the words of her son that have been transmitted to us by Plato. The mother of Socrates said: "*Always deliver a woman who has difficult labors and facilitate abortion when the mother of the infant so decides.*" We need not be astonished at this. The ancients had altogether different ideas of abortion from ours. A contemporary of Augustus Hyginus, the grammarian, tells us that even antique Greece saw difficulties arise between the physicians of the two sexes. He reports the legend of Agnodice, the first female physician of Athens. The recital of Hyginus may be considered as fabulous, yet it is possible, for the legend is ever the truth concentrated or transfigured; and it is very probable that in a few centuries hence the history of the first female physician of the nineteenth century, Madame Madeline Bres, will enter in future narrations as a mere legend, too.

The adventures of Agnodice are a gracious symbol. Before her day the Athenian law interdicted slaves and women from the practice of medicine. It likewise happened that many women whose modesty prevented them from ever consulting male physicians died from lack of medical attention. Then a beautiful young girl, Agnodice, resolved to aid her own sex. So she cut off her fair locks, assumed the costume and airs of a man, and followed the medical teachings of Hierophilus. Her education being finished, whenever she heard that a woman was attacked by a malady of the fair sex she went promptly to the aid of the sufferer, and if the patient took her for a man, she made herself known as a woman. This plan attracted a great practice, and the Greek doctors, getting wind of the affair, accused Agnodice; and she was brought before the areopagus, or magistrate, on the charge of corruption. The magistrate was on the point of sentencing her, when Agnodice openly declared her sex. Did she do this in the same manner as the lovely Phryne? We do not know, but hope, for the sake of modern doctresses, she did not. Yet her jealous

¹ Translated from the French.

male adversaries cried out that the law had been violated. But the Athenian women had influence then, just as woman ever has had, and intervened in favor of Agnodice, for had she not saved their lives? So wise Grecian legislators revised the law that barred women from practicing medicine, at least, and the field was open to the fair sex.

As we said at the beginning, a doctress, Miss Melanie Lipinska, has written a large volume on the history of female physicians from days of antiquity to the present time. She fully shows by strong documentary evidence that the woman doctor has existed in all times and in every land. Indeed, she proves that it has only been in later days that women have been restricted in their rights to practice the healing art. It is true then that it was only in the middle of the nineteenth century that women reconquered and resecured what was their ancient right.

The first French woman to secure a diploma, that of surgeon, used



MELANIE LIPINSKA.

the same subterfuge as that of the fair Athenian, Agnodice: by simulating masculinity. Besides, the authenticated adventures of this French doctress are much more romantic than those of the Grecian lady.

Henrietta Faber was the widow of a French officer killed at Wagram. Like many women of her day, she was occupied with surgery and the care of wounded soldiers. Widowed, she assumed man's costume and passed for a male, under the name of Henry Faber; thus she underwent her military examination in medicine. She remained as an acting surgeon in the "*grande armée*" up to the time of the war with Spain, when she was made prisoner. She remained in Spain until peace was declared and then departed for the Island of Cuba in 1818 as an official Spanish surgeon. One day she heard a man say as she passed, "That's a woman!" Greatly disturbed, and fearing to lose her means of making a living, she proposed to her maid to wed her for a recompense. This servant, who knew the surgeon's true sex, agreed to the unique proposal, but soon after betrayed

the secret in her idle chatter. Henrietta Faber was arrested, tried, and condemned for *sacrilege*; the sentence being ten years' confinement. In 1825 she was sent to Florida; there she resumed the practice of surgery again, made a fortune and finally died as a sister of charity at Vera Cruz.

If among primitive peoples female curers abounded, there were also many female physicians in Rome. Recent archæological discoveries have permitted moderns to rewrite the lives of these *medicæ*. But we need not follow Miss Lipinska through all this interesting historical matter bearing on women doctors. We leave to some gentle American *confrere* the task of a fuller translation of this very charming subject.

Let us remark in passing, however, that modern feminism recruits the greater number of its adepts among peoples of Anglo-Saxon and Germanic origin. We know that France furnishes but very few doctresses. The militants of international feminism gloat over the lukewarmness of their more modest French sisters. Our faculties count a minimum of French ladies, if compared with foreign female medical students. Now, the character of races changes but little. Germanic antiquity was ever feminist. We may even state that during a larger part of the "middle ages" the German women were far better educated than the men. Even at the present day, in the United States, the women are mostly superior in point of cultivation to the men. Yet France, during the "middle ages," had some very magnificent women when it came to intellectuality.

In the "middle ages" universities were rare in Europe; men acquired medical education by following some talented master, and, after some years of such experience, were admitted to the ranks of *master surgeons*. The archives of Marseilles reveal the case of one of these master surgeons who turned out to be a woman. We read that Sarah Gilles took, on August 28, 1326, one Signor Salret as a student. She contracted to lodge, feed and teach him medicine and physic for the space of seven months, on condition that the student, if he left her during that time, must repay his mistress for the benefits he had already received. When the "*faculty of medicine*" came into power it declared war against all female physicians. In 1220, an edict was promulgated that forbade any one practicing medicine who did not belong to the regular faculty, and, following the usual rules and customs under such circumstances, *only men were admitted to practice*. But this edict remained a dead letter, for public documents frequently refer to women physicians who practiced in France—at perfect liberty, too. In the year 1292 there were eight female physicians in Paris, whose names and address have been transmitted to posterity. In proportion to population then there were more doctresses in Paris than there are at the present day; for the register of 1900 shows eighty-seven women duly authorized to practice medicine in Paris. During the "middle age" there were female surgeons in France, which fact is proven by documentary evidence, an edict issued in 1311 forbidding female surgeons

from practicing in the city of Paris, unless they had passed an examination before a competent jury.

In the sixteenth century the medical faculties manœuvered so well that no women were found practicing medicine in France. But at that same time women physicians were reaping a rich harvest in Italy and in Spain, where the brilliant Oliva Sabneo wrote so well. The seventeenth century represents the complete decadence of feminine instruction in France. That was an anti-feminist age. It was the genial and yet satirical Moliere who wrote and expressed the unanimous male opinion at that epoch, when he demanded:

*"Ine la capacite de sou esprit se hausse,
A connoître un pourpoint d'avec un haut de chausse."*

At the end of this century some medical works written by women appeared, but it was only the eighteenth century that developed such great female writers as Miss Biheron and Madams Arconville and Necker; but these women were savants rather than medical practitioners. Under the Revolution, that saw the rise of so many absurdities, Madam Tallier demanded from the "convention" that all young girls should submit to an obligatory term of service in hospitals, "there to nurse and treat by the sweetest cares and consolations the sick poor," as the beautiful Theresa puts it, in all the pathos of the times.

It was the French Revolution that fully inaugurated the feminist movement of to-day, putting it in full activity. It burned fiercely throughout the first half of the nineteenth century, and the second half of the same century witnessed the full realization of advanced feminism. It will probably die out again by the twenty-first century; for history ever repeats itself.

The first woman to honestly acquire the degree of doctor of medicine was an American, Elizabeth Blackwell. In 1844 she demanded admission as a medical student of the Philadelphia faculty. Repulsed, she asked admission from every faculty in the United States. The demand was rejected by almost every faculty, but finally the faculty of Geneva Medical College, State of New York, decided to submit the question to their medical students. Now, your male American student is the most chivalric type the world over, whether in New York, Paris or London. These American medical students seriously examined the proposition, put the question to a vote, carried it by a majority, and their proceedings were duly ratified by the Geneva faculty. It was thus the real first female medical student of our age made her *debut*. Young America set the example for old Europe. Meantime, human nature was excited by Elizabeth Blackwell. Her title as student led her to undergo a thousand and one discomforts in the city of her residence. Hotel-keepers for a long time refused to receive her as a guest, under the pretext that her presence would injure their wholesale boarding-house business. When she passed along

the streets the shop-keepers would run to their front doors to see the "*she*" medical student. When Elizabeth Blackwell obtained her diploma she went to Paris, where she experienced the greatest difficulty in securing admission to the lectures. Then the physician-in-chief to one of the great Berlin hospitals wrote her to come to him; that his hospital would open its doors for the fair American. Meantime, a new stroke of diplomacy had been driven by American women; for, on December 12, 1850, the Philadelphia College for Women Physicians opened its doors. This college must not be confounded with the numerous pseudo-colleges that abound in the United States, and grant cheap, ready-made diplomas in all manner of *pathies* to aspiring female medical students. An American woman coming from the Philadelphia school may be regarded as competent; those from other schools are always failures—women with medical aspirations and no brains. So Philadelphia became, not without numerous struggles, the center of the world's feminine medicine. Then came many distinguished women who won diplomas by hard and earnest work—such female physicians (may their tribe increase!) as Amandibai Toshee and Garubai Karmanki, from India; Kei-o-Kami, from Japan; Sabat M. Isleboaly, from Syria; Hu King Eng, from China, and other distinguished Oriental female physicians. In 1900 there were more than three thousand female physicians in the United States; probably fifty per cent. out of these were incompetents from the average low-grade medical schools that are as thick as the leaves in Vallambrosa in that free, exceedingly free and easy, republic.

In Europe it was the Russian woman that overran the medical schools. Russian girls of the nihilist class love to dabble in medicine. So Russia had an intense attack of feminism. In fact, when Russian women passed rapidly from the condition of serfdom to a free state, and had a chance for education, they were intoxicated by the spirit of liberty. It was difficult even for the autocratic government to restrain their violence. In 1868, the Medico-Surgical Academy of Saint Petersburg conferred the diploma of doctor on Madam Rondnava, who had been admitted to finish her studies on account of a Cossack scholarship. This corps of Cossacks professed to be Mahometan of a certain tribe, and demanded a female physician to treat their women.

But this exception confirmed the general rule that in Russia closed the door of medical schools to women. About this time a young Russian girl arrived in Switzerland, it was in 1864, where she demanded from the University of Zurich the right to study medicine. There were very long discussions on the subject. It ended by granting the demand, and in a few years Zurich became the hot-bed of Russian female medical students. So much politics entered the study of medicine by female Russians, that in 1873 a ukase was issued by the Czar of all the Russias, enjoining all female Russian medical students to leave Zurich at once. No sooner had they departed than a crowd of English women took their places.

Meantime the example of Zurich had had an immediate imitation, for women were admitted to the study of medicine at Paris. Dean Wurtz, of the Paris faculty, never hesitated: for when, in 1866, Madam Bres, of Nismes, demanded the rules and regulations, they were sent her. In 1868 she presented herself for the degree, but she had been preceded for several months by three strangers: an American, Miss Putnam, probably the brightest woman that ever took up the profession; an English woman, Miss Garrett, and a Russian lady, a Miss Goutcharoff. This was the first feminine year of the Paris school. The appetite for medicine among women developed. Women now wished to join the *externat*; they succeeded in this in 1882. Then, of course, they had to conquer the position of *internat*; this they did in 1884. Finally, they started out to capture the clinical positions; they failed in this in 1886; but it is well to remember that woman is very persevering in all she undertakes. Afterward women aspired to medical teaching. Thus we see Madam Blanche Edward Pilliet replace her dead husband in the chair of physiology at Lariboisiere, while Madam Robineau was named prosector to the school of medicine at Rouen; and Madam Helena Gaborian added the title of doctor of pharmacy to that of doctor of medicine. She was the first woman who ever accomplished what few men have been able to do.

When European and American women start out to study medicine, they think they will succeed in their natal lands—but soon find the terrors of competition at the very outset of their careers. Woman can never tolerate competition from her own sex—that is her very weak point. So it happens that many women who have failed in medicine in Christian lands have found immense success in Mahometan countries. The Mahometan religion will not tolerate a male physician for women. So the woman doctor is ever a success in all the lands where Mahometan ideas prevail. This is why the Arabic physicians know so little as regards gynecology and obstetrics. Such writers as Avicenna, for instance, knew nothing about Arab women or her maladies. In 1887, the Dupuy ministry studied the question of women physicians for countries subject to Islamism, where women live in harems and are not permitted to receive medical treatment from male doctors—in fact, no man, save the eunuch is permitted to visit the harem.

In olden times this question was treated in yet another form by a legislator, a contemporary and agent of Philip the Fair. In a memoir, addressed to Edward III., King of England, in 1300, this legislator, one Pierre de Bois, claims that the crusades have for their purpose the moral conquest of the Orient. What better propaganda than women? He insisted that women must be taught Latin, Greek, Hebrew, Arabic, in order to convince their future clients. Since these same women must also be physicians and surgeons, they must be so highly educated that they would reach the intelligence of Mussulman women—and thus expand and expound, as they expanded, the beauties of Christianity.

This project of Pierre de Bois came to be put into practice within four hundred years. Read the life of Madam Halpin, who, in the eighteenth century, cared for Mahometan women—one should read all this romantic story in Madam Lepinska's work.

To-day Russian and Anglo-Saxon female physicians overrun Asia, many in the guise of missionaries. France even has sent a few doctresses to its African Mahometan territory, and Madam Chellier has had most remarkable success in Algeria.

The feminine oddity is strangely regarded in Paris. Some Parisian doctresses will insist on wearing masculine clothing. Not long since at one of the President's receptions, Madam Carnot set the example of taking a gentleman's arm on going to the lunch table. A young Parisian, a little under the influence of wine, found no one left in the salon but a person he supposed to be another young man. To this young person he gave a sharp slap on the shoulder and exclaimed good-naturedly:

"Eh bien, maintenant, si nous allons pisser."

He did not know he was speaking to a doctress in masculine clothing. But the doctress was up to Parisian snuff and quietly replied, *"Allons!"* Is there too much Gallic salt in this? If so, do not touch the article.

Chronic constipation in infants and children is too often regarded as a condition to be treated by the repeated administration of purgative medicines. The condition may easily result seriously or be productive of ill-health in later life. Of much greater value than medication is the establishment of correct dieting, and especially the establishment of systematic habits in evacuating the bowels. The habit of going to stool regularly may be impressed upon infants and children very early.

Suprarenal extract freshly prepared is a most efficient hemostatic and astringent. Dr. W. H. Bates, of New York, reports that he cures acute conjunctivitis at a single sitting of half an hour by repeatedly instilling the extract until the membrane is blanched, when he washes the surface with an antiseptic. The patient is afterwards instructed to bathe face and hands in a bichloride solution (1-5000), and special precautions are taken against reinfection from pillows, towels and infected individuals. The extract may be used with like efficiency in congestive and inflammatory states of any mucous membrane, being signally effective in rhinitis and hay-fever.

NEW METHODS FOR THE APPLICATION OF OLD PRINCIPLES IN THE TREATMENT OF FRACTURES AND DEFORMITIES OF LIMBS.

BY JAMES G. HUGHES, M. D., Sheboygan, Wisconsin.

IN ALL cases of fracture, to restore and maintain the limb in its normal position, extension and counter-extension between bony prominences, or a flexed segment of the limb, above and below the fracture, must be employed.¹ To this must be added immobilization, when normal position of the limb is accurately secured. In addition to the above principles, the open dressing, in compound fractures, is of primary importance for obvious reasons. Every splint should permit of inspection, bathing, ventilation, etc. There should be no circular constriction of the limb to retard the circulation. The effects of impaired circulation, delayed union, ischemia, stiff joints, and in some cases non-union, can be ascribed to this interference.

It is safe to say that fully one-half the fractures of the leg should be treated by the ambulatory method. Many patients assume the erect position in spite of the warnings of their medical attendant. The patient suffering from a fracture of the leg, or thigh, is asked to assume the recumbent position until nature repairs the solution. The principles governing the treatment of fractures are the same in the erect as in the recumbent position, and can be applied in one case as well as in another; and if these principles are fulfilled, displacement cannot occur in either position.

With a view of embodying the above principles in the treatment of fractures of the arm, and of fractures, deformities and diseases of the leg and hip-joint, the writer has constructed splints for the upper and lower extremities, each embodying the same general principles, so that a description of any one will suffice. The splints consist of inflatable cushions, in combination with adjustable stays, arranged in such a manner that there is no solid contact anywhere on the limb.

Each part of the splint is simply and easily adjusted. The cushions prevent any injury from pressure, and over the ankle they are arranged vertically with interspaces to permit of free circulation while securing extension. The leg or immobilizing cushions may be segmented if desired, but as the bones are not so superficial as at the ankle, and as there is no traction on the cushions, this is not necessary. The hip-cushion grasps the thigh at the angle of the pelvis, and is arranged so that it can be made to follow the angle of the right or left thigh, as desired. The sock grasps the leg at the ankle, with interspaces between its vertical cushions. By means of the adjustable stays, extension and counter-extension is made between these points with turn-screws and key. With solid metallic con-

¹ American Text-Book of Surgery, 1893, p. 287.

nection between these cushions, the degree of separation on which the adjustment depends remains the same, no matter what position is assumed.

Shortening is prevented in fractures of the leg and thigh. Immobilization is secured by the aid of the leg-cushions and clips connecting the stays, and is under full control, deformity being prevented, as well as



Pneumatic Splint with Adjustable Immobilizing Hip-Joint Attachment for Walking. The Adjustable Belt not shown in the illustration.



Pneumatic Splint with Adjustable Belt Suspender Attachment for Walking.

shortening. When the splint is applied, the foot does not come into contact with the foot-plate.

In the ambulatory treatment, when the weight is placed on the foot-plate, it is received by the pelvis, the leg being in a "sling," suspended from the pelvis. A cane should always be carried, but where desired a crutch may be substituted.

The shoe of the opposite foot should be raised, to match the raised

foot. The erect position, with a limited amount of exercise, will tend to preserve the general health, increase the circulation, hasten absorption, and promote growth and repair; this, with the accuracy of adjustment which preceded it, and can be secured by this method, limits the amount of softening and absorption, hastens the time of healing, and avoids the usual muscular atrophy which accompanies fractures owing to disuse of limbs and circular constriction.

Bandaging to assist in retaining the fragments in apposition should pass from the leg or arm to the stays, for better support and to avoid circular constriction.

The suspender attachment supports the weight of the splint from the body, and is adjustable.

The accurate coaptation secured by this method reduces pain, lessens the amount of softening and absorption, and hastens convalescence. By avoiding circular constriction, we limit the amount of exudation; facilitate growth, repair and absorption; avoid ischemia and stiff joints.

Is circular compression adequate to maintain the apposition of the fragments? Experience in fractures of the upper third of the femur has shown that circular compression, no matter how applied, cannot by itself maintain apposition. What is true in the upper third is also true, in a lesser degree, in other places. The beneficial effects of circular constriction with bandage and cast have been overestimated, while its dangers and disadvantages have been too little commented on, if they have been fully appreciated. Open dressings facilitate inspection, dressing, bathing, ventilation, massage, and any indicated treatment, the importance of which needs no emphasis. The attachment for immobilizing the hip-joint is applied in fractures of the neck of the femur, and also used in hip-joint diseases, and is on the same principle as that now in vogue. When the key is removed and the caps replaced, the splint is locked, and the adjustment cannot be interfered with. The pneumatic pads are covered with satin-finished water-proof leather, and can be cleaned with warm water and soap when necessary.

The splints are easily worn under the regular clothing, and are so well constructed that they will last practically a lifetime.

They have been tested by the writer, in some severe cases, with perfect results; among them, one case of compound, comminuted, multiple fracture of both legs. The bones in the right leg penetrated the skin in five different places, and in the left leg in three. Several loose fragments of bone had to be removed. The usual dressings were tried, but had to be abandoned on account of the excruciating pain and stasis. Amputation of both legs was considered necessary by attending physicians, but the patient would not submit to it, and further counsel was called, resulting in the application of pneumatic splints to both legs. The pain ceased at once on application. The absence of circular constriction allowed complete restoration of the circulation, and permitted of proper open dressings for the

wounds. The splints were only worn thirty-three days; ankle and knee motion was in no way impaired; the union and result were perfect.

I mention another case, on account of the attending circumstances—one of simple fracture of the tibia. The patient was erecting a house at the time, and hauled lumber seven miles daily without discomfort and with perfect result.

Before bringing the appliances to the notice of the profession they were submitted to some of our most eminent surgeons, whose unqualified endorsement has demonstrated the unparalleled excellence of the treatment.

Nitric acid in the strength of 1 to 400 is claimed to be useful in the treatment of gonorrhœa. Injections are made four or five times daily, and are painless. The discharge lessens in two or three days, and a cure may be effected in a couple of weeks. For posterior urethritis, a deep injection of a one per cent. solution may be used, once a day.

Cowling's rule for calculating the dosage for a child is: Age at next birthday, divided by twenty-four. The fraction of the adult dose will be correct for the child. A simple method in writing the prescription, is to make it contain exactly twenty-four doses, then the entire amount of any drug in the prescription will be the adult dose multiplied by the child's age at the next birthday.

Saline infusions may be employed with advantage in certain cases of diphtheria, particularly in late cases where treatment by antitoxin is futile, and there is restlessness, thirst, vomiting, and heart weakness; also in early cases, to dilute the antitoxin and promote elimination by diuresis. A pint of saline solution may be injected subcutaneously, the site of injection being the back or right breast. The result is usually gratifying—the thirst and restlessness being allayed, and the pulse showing marked improvement. Diuresis is more free, and sleep is commonly induced.



SCIENTIFIC MISCELLANY

By LAWRENCE IRWELL, M. A., B. C. L.

Concerning Longevity.—The late Sir George Humphrey devoted a great deal of time and labor to an investigation of facts concerning longevity. He examined the family history of nearly one thousand persons, seventy-four of whom were almost one hundred years old. His conclusions were somewhat as follows: The most important factor is a "good" constitution, which appears to be largely dependent upon satisfactory digestive and nutritive functions. An energetic temperament and active habits are conducive to long life, but it is impossible to avoid the conclusion that the vital machinery is wound up, so to speak, for a given period and, except for accidents, or in spite of them, it is likely to go on till the appointed time has elapsed. This fact involves some extremely complex problems in heredity, the solution of which is very far off. To an individual who comes of a short-lived family, extreme old age is not often vouchsafed; but it can be shown by statistics that with proper care a person of the phthisical type may reach the age of thirty-five without being attacked by the Koch bacillus, and when this age has been passed, there is no reason why, with suitable surroundings and food, long life should not occur. The truth is, however, that those who inherit the phthisical diathesis usually dislike the albuminous foods, and insist upon trying to live upon a carbohydrate diet. This assertion is specially applicable to young women, who often regard cakes and candy as the most important foods upon the daily list. The late Sir Andrew Clark, Mr. Gladstone's physician and friend, told Dr. Alexander Haig that, when young, he had to choose between gout and phthisis. "I chose gout," he said, and in Dr. Haig's "Uric Acid as a Factor in the Causation of Disease," we read (p. 381) that Sir Andrew "evidently thought that by eating a large amount of animal food he was cured of phthisis and got gout in its place." . . . The probability is, of course, that "cured of phthisis" means the disease was warded off. Dr. Haig continues: "There can be little doubt that the late Sir Andrew Clark chose wisely, for though collæmia and high blood pressure caused his death, he had lived for many years an

active and useful life, which phthisis would have made impossible." Sir Andrew died in 1893, at the age of sixty-seven.

Persons who inherit the phthisical diathesis need a great deal of albuminous food. Cheese seems desirable at least once a day. The danger connected with milk does not appear to be present to any extent in cheese. The number of deaths from tuberculosis pulmonalis in the United States in 1890 was 102,199. The census figures for 1900 are not yet published.

White Bread Versus Brown Bread.—What passes for "science" in popular publications is not always "up to date." A ten-cent magazine with a very large circulation contains, in its February issue, an article which deals with diet and kindred topics. The author, who is a physician, says: "Our white bread contains little else but the starchy or carbonaceous matter, which supplies only heat and energy." He makes no reference to gluten, but tells us that "we pay a dear price for having *white* bread on our tables. The wheat grain contains phosphates . . . nitrogenous matter . . . and carbonaceous . . . matter. All these should be contained in our bread; but instead, the flour is passed through a bolting cloth," and almost everything but starch is removed by that process.

Let us look at the other side of this question. An ounce of experiment is worth more than a ton of hypothesis. Within four or five years the bread question has been thoroughly investigated by Dr. Lauder Brunton, of London, England, whose report was published in either the *Lancet* or the *British Medical Journal*.

While it is true that whole-meal bread contains more nitrogen than white bread, it is necessary to remember that the nitrogen found in cereals exists in two forms: the coagulable and the non-coagulable albuminoids. The latter are almost useless for purposes of food, because they consist of alkaloids and nitrogen salts. The fine portion of the flour contains some coagulable nitrogen; the other parts of the flour contain nitrogen, which has very little value as food. There is, in addition, another point of importance. However finely whole-wheat flour may be ground by the use of steel rollers, it contains gritty particles, which irritate the alimentary canal and lead to the evacuation of partially digested food. As a result, whole-wheat bread has a laxative property which may have some value in cases of chronic constipation so often due to the insufficient consumption of water. But the claim that the so-called Graham bread (or brown bread or whole-wheat bread) is a better food than white bread is nothing short of a fallacy, because the latter contains all the available nitrogen that is found in the wheaten grain.

Parthenogenesis (Virginal Reproduction).—A couple of months ago I received a letter from a gentleman, a physician, who asked me to inform him of some form of life which reproduces its species both parthenogenet-

ically and also by sexual fertilization. The facts are as follows: Reproduction without fertilization is not known among mammals. In the insect world, however, it is very common. Aphides (plant lice) reproduce both ways. During the summer there is a constant production of females, which are viviparous (born alive), without any fertilization upon the part of the mother. The progeny have, as a rule, no wings. But the reproduction of these insects is so rapid that the plants upon which they live would be destroyed if another form of the species did not arise. Occasionally, therefore, a female is produced which has wings, and she, taking herself to another plant, starts a new colony. The progeny of these "colonial" aphides, in turn, resemble their grandparent, in the fact that wings are usually absent, though the preservation of the species is provided for by the occasional appearance of a winged individual. (The phenomenon referred to—the likeness of the insect to its grandmother, and not to its mother—is known as metagenesis, or the alternation of generations.)

As yet no male has appeared upon the scene. But colder weather and the scarcity of food result in the birth of males, which fertilize the females, and eggs are then laid. These eggs do not usually hatch until spring.

The relation between sex and feeding can be easily demonstrated with tadpoles. If they are fed upon meat, and plenty of it, the percentage of female frogs will be about eighty. Upon the other hand, if the tadpoles are given little albuminous food, the percentage of female frogs will be less than forty. Semi-starvation must be avoided, for it is likely to prevent the metamorphosis, and to keep the tadpoles indefinitely in the sexless stage.

The life-history of aphides sounds like a romance, but it is well authenticated, and not particularly difficult to prove.

Dr. Brown-Sequard's Experiments Upon Guinea-Pigs Repeated With a Different Result.—For almost a dozen years the neo-Lamarckians were never tired of telling us that the late Dr. Brown-Sequard proved that the drooping of the eyelid known as ptosis, when artificially produced in guinea-pigs, was transmitted to the next generation. Personally, I never believed the assertion, because a droop of the eyelid in dogs, upon whom no operation has been performed, is not very rare, and the same *may* be true of guinea-pigs. But we now have some direct evidence upon the question. Mr. Leonard Hill, of University College, London, has repeated Dr. Brown-Sequard's experiments, with a very different result.

By division of the cervical sympathetic nerve a permanent droop of the upper eyelid can be obtained. According to Brown-Sequard, this was inherited by the young. Mr. Hill divided the nerve in six guinea-pigs on the left side, but none of the "children" of these animals inherited the permanent droop of the eyelid. He again divided the nerve in twelve of the "children," and interbred them, but none of the young inherited the permanent droop. Mr. Hill observed a temporary droop of either the

right or left upper eyelid in some of the young, but this was caused by conjunctivitis, arising from infection after birth, for the young were never born with the droop. When the conjunctivitis disappeared, so did the droop, which was not due to paralysis, but to photophobia. It often disappeared upon sudden excitation of the animals.

These experiments have knocked out one of the main "props" of neo-Lamarckism. It is true that Dr. Wolf, of Baltimore, has discovered some Jewish boys who were born ready circumcised, and a few others whose prepuce was short at birth. But if the learned doctor, instead of asking us to believe that this proves the heredity of acquired characters, will search with sufficient diligence, he will find that non-Jewish boys are sometimes born without a prepuce.

Ventral and umbilical hernia are operated upon by Hagen in the following manner, based upon the idea of covering the defective and thin cicatrix by muscular flaps: After incision through the abdominal wall, the peritoneum and fascia are united by sutures. After extensive lateral loosening of the skin, the external sheath of the rectus is divided at about the middle of the belly of the muscle. Carefully avoiding the nerve branches, a portion of each muscle is loosened so that it may be turned inwards, placing the external portion of the muscle against the already sutured fasciæ. These muscular flaps are sutured in place and the skin united over them. Great success is claimed in the practice of this operation.

Dawbarn, in his paper on the technique of bloodless operations, recommends a simple expedient for the diagnosis of fractures at the elbow where swelling has taken place. He credits the method to Dr. Gerster. In case of a fracture or dislocation, or both conditions combined, at the elbow, when swelling has already taken place and a speedy diagnosis is imperative, this cannot be reached by the X-rays alone. He anæsthetizes the patient and applies a rubber bandage from the fingers to the shoulder firmly and slowly; this is left on for fifteen to twenty minutes. Then the bandage is unrolled, leaving the last turn or two in place. Upon examination now all the swelling and œdema will have disappeared and all the bony points of examination will be exposed as upon the other arm. Whatever condition is found is corrected, the positive diagnosis, made and the swelling allowed to return. The method is easy of execution and of greatest value regarding the prognosis.



A Text-Book on Practical Obstetrics. By **EGBERT H. GRANDIN, M. D.**, Gynecologist to the Columbus Hospital; Consulting Gynecologist to the French Hospital; Late Consulting Obstetric and Obstetric Surgeon of the New York Maternity Hospital; Late Obstetrician of the New York Infant Asylum; Fellow of the American Gynecological Society, of the New York Academy of Medicine, of the New York Obstetrical Society, etc., etc., etc., with the collaboration of **GEORGE W. JARMAN, M. D.**, Gynecologist to the Cancer Hospital; Instructor in Gynecology in the Medical Department of the Columbia University; Late Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynecological Society, of the New York Academy of Medicine, of the New York Obstetrical Society, etc. Third Edition, Revised and Enlarged. Illustrated with 52 Full-Page Photographic Plates and 105 Illustrations in the Text. $6\frac{1}{2} \times 9\frac{1}{2}$ inches. Pages xiv-511. Extra cloth, \$4.00, net; sheep, \$4.75, net. F. A. Davis Company, Publishers, 1914-16 Cherry street, Philadelphia.

This is one of the clearest and most practical treatises which has lately come to our attention. The illustrations are especially commendable, being beautifully clear and well selected. The whole range of obstetrical practice is ably covered.

Physical Diagnosis in Obstetrics. By **EDWARD A. AYERS, M. D.**, Professor of Obstetrics in the New York Polyclinic; Attending Physician to the Mothers' and Babies' Hospital. A Guide in Ante-Partum, Partum and Post-Partum Examinations, for the Use of Physicians and Undergraduates. With Illustrations. Price, \$2.00. E. B. Treat & Co., Publishers, 241-243 West 23d street, New York. 1901.

A practical and useful guide to the methods to be used in gaining information relative to the puerperal state. Forms for keeping case records are given, and the reasons for noting of various conditions are noted. The book will be found a useful adjunct to the library of any obstetrician.

The Tale of a Field Hospital. By **SIR FREDERICK TREVES**, Surgeon Extraordinary to H. M. The Queen. It is Printed in Red and Black; Bound in Leather with Gilt Top. Size, 6x7; 115 Pages and 13 Handsome Illustrations from Photographs. Price, \$2.50

Sir Frederick was sent to the front in the African War by the English government as consulting surgeon to the forces, and the book is his ac-

count of a field hospital, which followed the Ladysmith relief column from the time that that column left Frere until it entered the long-beleaguered town.

This record is based upon notes written day by day on the spot. It may be that the story is a little somber and possibly on occasions gruesome, but war as viewed from the standpoint of a field hospital presents little that is cheery.

A System of Practical Therapeutics. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital. Second Edition, Revised and Largely Rewritten. Vol. I. With Illustrations. Philadelphia and New York: Lea Brothers & Co. 1901.

This volume includes general therapeutic considerations, prescription writing, remedial measures other than drugs, preventive medicine, and diathetic diseases and diseases of nutrition. The best modern methods in the treatment of disease will be found in this work, and any physician may derive considerable practical benefit from it as a work of reference.

Diseases of the Nervous System. A Text-Book for Students and Practitioners of Medicine. By H. OPPENHEIM, M. D., Professor at the University of Berlin. Authorized Translation by EDWARD E. MAYER, A. M., M. D., Pittsburg, Pa. First American from the Second Revised and Enlarged German Edition. Octavo; 899 pages, with 293 Illustrations. Philadelphia and London: J. B. Lippincott Co. 1900.

Professor Oppenheim is a prominent figure in the field of neurology, and his writings bear the stamp of original research and unquestioned authority. The work is admirably arranged and is ably translated; and the whole subject of nervous diseases is treated in a most practical manner.

Vascular nevi in infants may be successfully treated by compression, if early observed and attended to. The compression is accomplished by painting the surface with a mixture of one part ichthyol with nine parts collodion, two or three times a day. The brown pellicle that forms compresses the nevus until the rapidly growing surrounding tissues have caught up with the excessive growth of the angioma or nevus.

MEDICAL TREATMENT.

The Army Surgeon and Typhoid Fever.—Osler, in a few pointed remarks in a paper on perforation and perforative peritonitis, says that the student should be given a better chance to study typhoid fever in its progress from day to day, and points to the methods now employed of delivering brilliant lectures, reading of extensive theories and occasionally seeing cases *en passant* in the clinics as inadequate. He quotes the reports of Reed, Vaughn and Shakespeare, on the prevalence of typhoid fever during the Spanish-American war, and the inadequacy and inability of the army surgeons to diagnose the disease. Of twenty thousand cases less than fifty per cent. were recognized; the rest were treated as malaria or awaited the transfer to various hospitals ere a diagnosis was made. The authors of the report allowed themselves the apologetic remarks that likely the army surgeons did better than would have done civil physicians; which leads to the supposition that the army has the pick and choice of the profession, while in truth the aspect is somewhat changed.

The young physician entering the army is, as a rule, well trained theoretically. Leaving aside the few cases of senatorial or personal influence, a rigid examination usually shows the candidate has been well crammed up, and is really fit to go into the service. If they only had a course of practical medicine after having passed the examination, able men could be made of the material making up the army staff. This is not the case, and the men remain what they were—theoretically trained puppets, able to dance, court and write glowing letters back to the villages they have emerged from. When thrown into active service they are unfit to meet an emergency; while during peace they grow from overtrained youngsters to pedantic, rusty bigots, who hold their juniors down to their own level by the degrading caste feeling engendered by military discipline and an inactive life. It is this continually patting themselves on the back that makes the army surgeon not only intolerable to the rest of his profession, but also engenders friction between the M. D. of the regular staff and the so-called contract surgeon.

Anæsthesia of the Spinal Cord Through Cocainization.—J. B. Murphy has collected five hundred and ninety-two cases, and reports on its technique and results.

Among those cases there was one death (Tuffier). Of five deaths reported due to the anæsthesia in Tuffier's clinic, four were due to other causes. He places stress upon four points: The technique of preparing the solution, of using the proper quantity, of selecting the proper place, and of proper care of the patient afterwards.

The cocaine should be prepared by chemists who give special attention to the sterilization of the crystals, and the solution should be made under all aseptic precautions. The dosage ranged from gr. 1-20 to 1-10 for children. A dose of gr. 1-20 had been used in a child two and one-half years of age.

In adults the dose ranges from one-sixth to one-half grain. In his personal experience he had not used more than m. xv of 2 per cent. solution, but generally uses only m. x to xij, except for operation on the cervix or hæmorrhoids. The symptoms after the injection of cocaine, in order of their occurrence are: great thirst, mental depression and pallor; nausea and vomiting do not last longer than a minute or two. In one of his own cases the vomiting lasted five minutes; nausea lasted longer, but was never severe enough to interrupt the operation. A very important manifestation is the elevation of temperature following the cocainization, the temperature going up to 103° F. The duration of the analgesia lasts sufficiently long for any ordinary operation. In a case of osteotomy of the femur the operation last one hour and twenty minutes, analgesia being perfect during the whole time.

Prevention of Puerperal Septicæmia.—In our warfare with bacteria we do not aim to exterminate all possible pathogenetic organisms, but to render their presence harmless after their number has been reduced. On the human body bacteria abound without leading to constant trouble, their innocuous presence being to the action of the respective tissues upon which they are located. It is as impossible to render a vagina sterile as it is to sterilize the obstetrician's hands, yet sepsis does not frequently follow normal labor. The development of sepsis depends upon the introduction of heterogeneous germs in probably pure culture. A very formidable source of virulent germs, causing a series of severe infections of the puerperium, is the rectum and anus. The anus infects its neighborhood, furnishing, also, infectious material for the vulva and vagina. The preparatory cleansing of the patient, therefore, is of utmost importance. On the morning of beginning labor the patient should receive a hot bath and a thorough flushing of the rectum with a hot soap-suds solution. This flushing should consist of two steps: 1st, a large injection, in order to remove the fæcal masses; this should be followed in half an hour by another injection to remove whatever is left. After thoroughly evacuating the intestines the perineal region should be scrubbed, shaved, and washed again. A hot douche is given of 1-1000 bichloride or 1-100 lysol, and the external genitals, creases and folds of the perinæum washed with the antiseptic solution. An occlusive dressing of gauze and cotton is then placed over the genitals, and the same is changed every time the patient urinates or discharges fæcal masses. After each evacuation the anus and genitals should be carefully washed, as before.

Physicians as Witnesses.—In ordinary cases, where a physician's statement is used only as corroborative evidence, or where the physician has to give evidence of only secondary importance, the practice should be introduced to get the physician's statement in the shape of a deposition. While the physician owes the State he lives in some consideration otherwise than the dues he pays to the commonwealth in waiting on the indigent and guarding the health of the commonwealth, the obligation the profession owes to the State should not lead to misuse of the physician's time in trifling cases. All physicians know what a nuisance it is to be subpoenaed to a court-room, and to go there day after day to suit the pleasure of a snobbish judge or some dipsomaniac individual whose fancy it suits to juggle with his cases and the time allowed for the trials. The physician can aid justice well enough by sending in his sworn written statement; and unless the judge knows less of justice than of bribery, or unless it be in the interest of either party of the suit to influence the jury by the personal magnetism, the display of wit of the witness, or the holy show of cross-examination, a written deposition will come as near bringing forth the truth as will the system of harassing brow-beating now in vogue. The justice who fined and remitted the fine of a physician for contempt of court because he had failed to appear as a witness, being detained by a very ill diphtheria patient, saying: "It were better the patient had died than that the commonwealth's witnesses should place themselves in contempt of court," had evidently not so much the commonwealth's fortune before his eye as his own estimable dignity. The commonwealth, being in no danger requiring the sacrifice of human life, depends for its welfare upon the health and welfare of the individual, and must not throw obstacles in the way of professions ministering to the welfare of its citizens. But judges are human and erring. This particular judge probably felt the necessity of displaying his loyalty for the community to the extent of sacrificing human life before an election, and counted on the grand-stand play to make his constituency forget, probably, sins of service committed during the past term. Judges are queer animals sometimes, and their disregard of other professions is only equaled by their ignorance of the rights of the individual.

Tetanus from Antidiphtheritic Serum.—During the last few months there have been an unusual number of diphtheria cases in Italy, and antidiphtheritic serum was extensively used, nearly all derived from the Milan Institute of Serum Therapy, under the charge of Belfanti. According to the *Muench. Wochenschrift*, eight cases in a small town were injected with the serum, and all were recovering, when, on the sixth and ninth day, they were taken with fulminating tetanus, and all but one died. Similar experiences were reported from other points, with a total of thirteen deaths. The boards of health of Rome and Milan met in emergency session and closed the institute. Three hundred and five vials, all of a certain series, were delivered between November 29th and December 1st,

and two hundred and thirty were recovered by speedy telegrams to the persons who had obtained them. Animals, injected with the suspected serum, failed to develop tetanus, and no tetanus bacilli could be demonstrated. Italy does not observe an official standardizing of sera, as in Germany. The accident is likely to cause special regulations by the government.

Dosage of Cocain in Intraspinal Anæsthesia, and Technique of Administration.—Murphy, in his summary of the cases he has collected, finds that most surgeons agree that a two per cent. solution is preferable for adults, except in younger patients, where a one per cent. solution should be used, as advocated by Bambridge. The quantity to be used of the two per cent. solution ranges from seven to twenty minims; it depends upon the peculiarities of the patient, the extent of the operation, and the site of the operation. It is seldom necessary to use more than fifteen minims, and, except in rectal and vaginal operations, usually less than ten minims.

Cocain being very unstable when exposed to the air, the method of preparation is of great importance. It will not tolerate boiling for sterilization. The solution should be freshly prepared each time by adding a definite quantity of sterile water to a definite amount of crystals, weighed amounts of which may be previously sterilized in waxed paper and kept ready for use. The hypodermic syringe used for injection must be made of material which can be boiled after each injection. The quantity of solution drawn into the syringe should exceed that which is used, as some solution may be needed to free the needle-point from blood, in case there is difficulty in entering the canal. The set-screw governing the quantity of fluid should be placed before connection with the needle is made. Before inserting the needle the skin may be frozen with ethyl chloride, and a puncture made with a scalpel, to guard against infection from the skin.

Streptococcus Infection of the Peritoneum.—Infection of the peritoneum can take place through the blood stream as well as through a primary route in surgical operative cases. It is often seen in newborn children, where infection commonly occurs from umbilical infection. In adults it is either primary or follows a streptococcus angina. It is most often seen in women who have streptococcus infections of the sexuo-genital organs. In such instances the infection is brought about through the menstrual flow, and thence through the periuterine lymphatic spaces and vessels to the peritoneum itself. Another form of peritonitis due to this organism may follow in the wake of an erysipelas of the abdomen, or may be conveyed by the lymphatic vessels from the pleural cavity in a case of streptococcus pleuritis. Although this condition is met with in the woman, it is a fact that experimental work with animals, such as rabbits, looking toward a demonstration of the fact that streptococcus infection of the peritoneum may take place through the blood stream, has been a signal failure in every instance.

NEW REMEDIES

Eosolate of Quinine (Chininum Eosolicum)—The formula for this mono-acid salt is as follows: $(C_6H_7S_3O_{12}) (C_{20}H_{24}N_2O_2)_3$. It is accordingly composed of about seventy per cent. quinine alkaloid and ten per cent. creasote. It is a valuable remedy in the treatment of malaria with mixed infections. It is evident that a remedy combining the antiseptic and anti-malarial action of quinine with creasote will be most effective in the side affections which accompany malaria. In the uncomplicated forms of malaria it is, of course, as effective as the common preparations of cinchona, with the added advantage of forestalling complications.

The following are case records noted in a local hospital:

CASE 1.—H. F., aged forty-three. History of excessive indulgences in alcohol. Ill for three months past, during which time he had coryza, cough, chills and fever at irregular intervals; muscular pains all over body, headache, lassitude, diarrhea, gastro-enteritis, loss of appetite and insomnia. Liver and spleen enlarged. Blood examination shows plasmodia. He had been dosing himself with quinine sulphate, with only temporary relief. Eosolate of quinine administered five grains t. i. d., and improvement was gradual, but satisfactory.

CASE 2.—H. S., aged seventeen. Good personal and family history. Had been in one of the intensely malarial districts of Indian Territory for four months, during which time he had severe rigors almost daily, with ordinary malarial symptoms. For a month past ankles and feet have been edematous. Marked cachexia and emaciation. Urinalysis shows presence of blood cells and blood casts, with about one per cent. albumins. He was first given routine treatment of quinine sulphate, arsenic and iron. The malarial paroxysms ceased, but the intense anemia persisted, and his general condition improved but slowly. A month after entrance, quinine having been discontinued, he had several severe rigors, and his blood showed fully developed plasmodia of the tertian type. Eosolate of quinine was given. There was no return of chills or fever, and patient left hospital two weeks later in very good condition, with very slight cachexia and without symptoms of nephritis.

CASE 3.—J. L., aged forty-one. Family history of phthisis. Unwell for more than a year past. He first had typical malarial attacks, which were irregularly treated with quinine, with temporary relief. His health steadily declined, and about four months ago he became unable to work. Has lost about twenty pounds in weight. Has chilly sensations daily, followed by fever and general discomfort. Occasionally night sweats. Temperature ranges from 99° in morning to 102° in afternoon. Patient is emaciated and anemic. Relative dullness with prolonged expiratory murmur, and increased vocal fremitus over both apices; cough with copious muco-purulent expectoration. Sputum examination showed streptococci and staphylococci; no tubercle bacilli. Plasmodia present in blood. Diagnosis: phthisis and malaria. Treatment: quinine eosolate. Patient remained in hospital twelve days. Temperature became normal; cough

less severe; and there was marked general improvement, with a gain of several pounds in weight.

Borobenphene (Heil).—It has the antiseptic properties of boracic acid, sublimed benzoic acid from Siamese gum benzoin, phenol, etc., and is prepared by a special process, by which a powerful, safe, reliable, non-irritating and pleasant antiseptic is produced.

It mixes in all proportions with water, glycerine and alcohol.

It prevents the development of bacteria and decomposition of animal and vegetable matter, and destroys bacteria in every form, is a valuable remedy for the treatment of affections of the ear, nose, throat and mucous membranes of the human body, whenever an antiseptic is indicated, and is of great benefit in the treatment of bronchitis by inhalation. It also possesses powerful healing properties, and may be applied locally to wounds, ulcers, abscesses, etc., or used as a gargle, inhalent or injection, in full strength or diluted to suit the varied conditions.

Glycobenphene (Heil).—Practically same formula as above with the addition of *absolutely pure* oxid of zinc.

It is an excellent dressing for wounds, and heals the oldest sores within a few days. In the treatment of ulcers and abscesses it is invaluable. It can be used freely with absolute safety—in fact, it should be used freely to obtain the best results.

Glycobenphene is also indicated in facial eruption, erysipelas, hives, burns, scalds, mosquito and other insect bites, and it is a positive remedy for dandruff.

An original bottle, holding one pint, gratis to any physician wishing to try it. Simply make application by postal card to Henry Heil Chemical Co., 212 S. Fourth street, St. Louis, Mo.

Lyptol in Minor Surgery.—(By L. J. Pritchard, M. D., Institute, N. C.)—As practitioners of medicine we are constantly meeting with cases of minor surgery which seem to require some kind of dressing, that of the form of an ointment. Ointments can be better used by the ordinary class of patients, as they seem to understand their use better than powders, washes, etc., and they seem to satisfy them better for the surgical troubles for which we are consulted than anything else. Having experimented with numerous ointments offered by various pharmaceutical houses, and several extemporized by myself, as well, I accidentally stumbled across a sample of lyptol, and gave it a thorough trial as an application in minor surgery, and find that it is not wanting in any particular. Being composed of the most potent antiseptic and healing agents known to the science to-day, it stands to reason that it is an ideal application, and as such I have found it on all occasions.

The following related clinical histories will aptly illustrate its uses and the results to be expected therefrom:

An old woman presented herself at my office suffering with an ulcer of the outer side of right leg. The ulcer was of several years' duration, and several physicians had treated it during its existence. I gave her a box of lyptol, and directed her to thoroughly cleanse it every morning and

night with warm water and soap, and apply the ointment in good thick layers and then cover parts with a thin muslin cloth to prevent anything from injuring it. Two weeks later she came back, and stated that her leg was almost well. I found upon examination that a great deal of progress toward recovery had been made during that time. The ulcer was not more than one-half its former size, and I feel that the old woman had assiduously carried out my instructions. I renewed her supply of lyptol, and when I next saw her, three weeks later, she told me that the place had entirely healed.

A young man came with a well-developed case of chancroids, with which he had been troubled several days. The amount of discharge was something more than usual, and the places evinced no signs of healing. I prescribed lyptol, and directed him to apply same three times daily after carefully and thoroughly cleansing parts with soap and warm water. I quieted his apprehensions as much as possible, and asked him to report in six or eight days. He did so, and all the chancroids had about healed. A few days more sufficed for a complete cure.

I have used lyptol for all varieties of venereal lesions, and find that it gives the best of results in all cases. It is easy of application, and commends itself in many other ways as well.

I prescribe it extensively in cuts, bruises, sores, etc., and it always acts well, the affected parts usually recovering in a short time. The following case will illustrate it well in cuts:

A farmer cut his leg with a sickle blade. The wound extended to the bone in an oblique direction and severed nearly all the fleshy structures on the back of the leg. He sent for me. I sewed up the wound, after having cleansed it carefully, and used lyptol for a dressing afterwards. The place healed perfectly in ten days' time without a particle of pus formation. Of course in the treatment of wounds with lyptol the same antiseptic precautions are to be observed as far as possible, for that greatly lessens the tendency to pus formation due to infection. However, I desire to state that I have found lyptol an excellent pus destroyer and disinfectant, and when I use it on wounds I use nothing else for those effects.

I find lyptol an excellent application in all forms of burns. It has a soothing, healing and antiseptic action, thereby preventing infection to a great extent and hastening recovery. In fact, I use it as a local application in nearly all forms of lesions presenting themselves and requiring local treatment, and the fact of my almost universally using it should be sufficient to cause the most skeptical to know that I fully believe in its efficacy as a therapeutic agent. I use it as a lubricant in all my obstetrical and gynecological work, and find that it serves that purpose better than anything that I have hitherto tried.

Pepto-Mangan "Gude."—(By Wm. Krauss, Ph. G., M. D., of Memphis, Tennessee, Director of the Microscopic Laboratories, Memphis Medical College; Pathologist and Visiting Physician to St. Joseph's Hospital, etc.)—Some five years ago I wrote a paper for the *Memphis Medical Monthly*, giving a *resume* of the evolution of the iron compounds, and appended a report of cases, giving blood counts, etc. The manufacturers of the preparation I preferred saw fit to reproduce the case reports in their

pamphlets, but said nothing about the reasons that induced me to prefer their product.

At a recent joint meeting of physicians and pharmacists I was criticised for opposing the use of ready-made compounds, while still advocating the use of pepto-mangan "Gude," which is a proprietary preparation. I hesitated considerably about bringing the matter up again, because I dislike to build up a reputation as an endorser, *and have never in any other instance written an article endorsing a proprietary preparation.*

I hope, however, to show you that there is no pharmacopœial preparation that meets the requirements of an ideal iron compound, and, until this is found, I intend to continue to use what has never disappointed me, and is not based upon mere faith. The work of Bunge is too well known to be now quoted, and I will only make a few experiments before you this evening and show the reasons for the faith that is in me. There may be other proprietary iron compounds, and doubtless there are, that will come up to the same requirements, but I see no advantage in swapping the devil for the witch.

It is not necessary to repeat all the tests with all the official iron preparations, because they are divisible into groups, all the salts of one group behaving very much alike toward the gastric and intestinal juices.

An ingenious theory recently put forward regarding the action of the mineral salts of iron is, that they decompose the substances in the intestinal tract which precipitate the *food iron* so that it may be absorbed. This is the only rational explanation of the fact that we do occasionally get results from them. On the other hand, it is far more rational to use an iron compound that can be and is absorbed, for then we are reckoning with known quantities, instead of blundering along, giving more iron at a dose than is contained in the entire body, and incidentally deranging the digestive functions by precipitating the gastric, pancreatic and intestinal juices, and producing constipation by reason of the very astringent nature of some of the iron salts.

Beginning with the organic double salts, of which the scale salts are representative, we notice upon the addition of this gastric juice that a precipitate is formed; the double salt is decomposed and ferric salt remains, which is insoluble, both in gastric and intestinal juice.

The tincture of ferric chlorid will precipitate some of the gastric constituents, though most of the iron will remain in solution in the hydrochloric acid; the iron still in solution will not be absorbed, because its non-diffusibility is taken advantage of in the manufacture of *dialized iron*, the acid passing through the animal membrane; when the iron finally reaches the intestine, the alkaline carbonates promptly precipitate it. Ferrous sulphate behaves similarly. In both instances, as you see, the very insoluble ferric oxid is finally formed. If you have ever tried to remove iron stains from your water pitcher, you have some idea how insoluble it is.

The insoluble compounds, like reduced iron or Vallet's mass, only serve to render inert the arsenic with which they are usually prescribed; if dissolved at all in the stomach, they are re-precipitated in the intestine.

Taking now Gude's preparation, we find it soluble, not only in all these reagents, but also in a mixture of them. Potassium ferrocyanid

readily gives the iron reaction; excess of ammonia will separate it, redissolving the manganese, which is then recognized by the color of its sulphide; the alkaline copper solution gives the reaction for pepton, showing that it is what the label says. It mixes with arsenious acid, forming a perfect solution, thus giving us a most useful hematopoietic agent. The soluble alkaloids are perfectly soluble in it, as is also mercuric chlorid. Being a pepton, it is readily diffusible by osmosis.

The only disturbing agent in the intestinal tract is hydrogen sulfid this will precipitate it, but presumably much of the iron must have been absorbed before it encounters this gas; if not, appropriate agents should be used for its elimination.

Therapeutically, it does not nauseate, constipate, discolor the teeth, precipitate the digestive agents, nor become inert from contact with them. As to the clinical results, I need not add anything to the many reports already on record.—Read before the Memphis Medical Society.

Fever Therapy.—Since 1890 I have used acetanilid almost entirely, partly on account of its cheapness, and also for its good effect. In a case of continued fever, recently, I used a new remedy, "salo-sedatus," that works pleasantly and to the good of the patient. In case of a child with enteric fever resembling typhoid, I used it in two and three-grain doses *pro re nata* with effect of quieting the nerves, reducing the temperature, and, I believe, aborting the disease, as the child was free of fever by the ninth day and up about the house by the fourteenth. Also, it had every symptom of typhoid, even to the yellow color of the palms of hands and soles of feet. It used to be taught us that typhoid fever *must run twenty-one days* at least. Years ago I had cases that ran twenty-one and twenty-six days before abatement; but within the last ten years I have either not had a case of typhoid or, somehow, it got out of gear and ceased to run on. How much the coal-tar derivatives have had to do with this change I cannot say, but I have used them in all and every case of continued and periodic fever that has come under my care.

It is broadly stated that deaths have been caused by small doses of two and three grains of acetanilid. I seldom give to children less than two grains and to adults eight to ten grains, and I have yet to see the first dangerous symptom to follow its use. True, a little cyanosis followed in a very few cases, but a small amount of coffee, whisky, or other stimulant corrected it in a few minutes. At the same time I have known of seven deaths inside of a week in one locality from hematuria brought on by quinine. The pleasant compounds will take the place of acetanilid very considerably in the future, the salo-sedatus salt being one of them, as there results no cyanosis from its use to frighten those who use quinine to excess.—BEN H. BRODNAX in *Medical Summary*.